(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 1 September 2005 (01.09.2005)

PCT

English

(10) International Publication Number WO 2005/080852 A1

(51) International Patent Classification⁷: F16L 19/028

(21) International Application Number:

PCT/KR2005/000351

(22) International Filing Date: 4 February 2005 (04.02.2005)

(25) Filing Language: English

(26) Publication Language:

(30) Priority Data:

10-2004-0008511 9 February 2004 (09.02.2004) KR 20-2004-0037573

31 December 2004 (31.12.2004) KR

- (71) Applicants and
- (72) Inventors: CHO, Bong-An [KR/KR]; 293-5 Hyangji-ri, Gyeryong-myeon, Gongju-city, Chungcheongnam-do 314-833 (KR). CHO, Joong-Won [KR/KR]; 293-5 Hyangji-ri, Gyeryong-myeon, Gongju-city, Chungcheongnam-do 314-833 (KR).
- (74) Agent: YOU ME PATENT AND LAW FIRM; Seolim Bldg., 649-10 Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

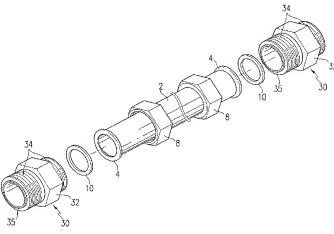
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PIPE COUPLING SYSTEM



(57) Abstract: The present invention provides a pipe coupling system in which a piping work can be simply and easily performed by coupling a pipe and a pipe fitting to each other with a screw and a sealing effect can be enhanced by providing a soft sealing ring coming in close contact with the surfaces of the pipe and the pipe fitting. The pipe coupling system comprises: a pipe (2) provided with a flange (4) which is formed by bending an end of the pipe (2) in a direction perpendicular to a circumferential surface thereof; a swivel nut (8) fitted into the pipe (2) such that a rear end of the swivel nut (8) is laked to the flange of the pipe (2) to prevent separation; a soft sealing ring (10) provided to come in close contact with the surface of the flange (4) of the pipe (2); and a pipe fitting of which a part of a circumferential surface is provided with a male screw (34) such that the male screw (34) is coupled to the swivel nut (8) fitted into the pipe (2) and of which an end surface coming in contact with the soft sealing ring (10) is provided with a support protrusion (35) such that a part of an inner surface of the soft sealing ring (10) coming in close contact with the end surface is supported by the support protrusion (35).

